

# 34GD5A

## Beam Power Tube

7-PIN MINIATURE TYPE  
With Heater Having Controlled Warm-Up Time

### GENERAL DATA

#### Electrical:

Heater, for Unipotential Cathode:

Voltage (AC or DC) . . . . .	34	volts
Current . . . . .	$0.1 \pm 6\%$	amp
Warm-up time (Average) . . . . .	20	sec

Direct Interelectrode Capacitances

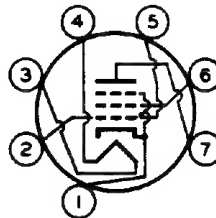
(Approx.):<sup>a</sup>

Grid No.1 to plate . . . . .	0.6	$\mu\text{f}$
Grid No.1 to cathode & grid No.3, grid No.2, and heater . . . . .	12	$\mu\text{f}$
Plate to cathode & grid No.3, grid No.2, and heater . . . . .	6	$\mu\text{f}$

#### Mechanical:

Operating Position . . . . .	Any
Maximum Overall Length . . . . .	2-5/8"
Maximum Seated Length . . . . .	2-3/8"
Length, Base Seat to Bulb Top (Excluding tip) . . . . .	$2" \pm 3/32"$
Diameter . . . . .	0.650" to 0.750"
Dimensional Outline . . . . .	See <i>General Section</i>
Bulb . . . . .	T5-1/2
Base . . . . .	Small-Button Miniature 7-Pin (JEDEC No.E7-1)
Basing Designation for BOTTOM VIEW . . . . .	7CV

Pin 1-Cathode,  
Grid No.3  
Pin 2-Grid No.1  
Pin 3-Heater



Pin 4-Heater  
Pin 5-Grid No.1  
Pin 6-Grid No.2  
Pin 7-Plate

### AMPLIFIER — Class A<sub>1</sub>

Maximum Ratings, Design-Maximum Values:

PLATE VOLTAGE . . . . .	150	max.	volts
GRID-No.2 (SCREEN-GRID) VOLTAGE . . . . .	130	max.	volts
GRID-No.1 (CONTROL-GRID) VOLTAGE:			
Negative-bias value . . . . .	50	max.	volts
Positive-bias value . . . . .	0	max.	volts
GRID-No.2 INPUT . . . . .	1.1	max.	watts
PLATE DISSIPATION . . . . .	5	max.	watts
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode . . . . .	200	max.	volts
Heater positive with respect to cathode . . . . .	200 <sup>b</sup>	max.	volts
BULB TEMPERATURE (At hottest point on bulb surface) . . . . .	250	max.	°C



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## Typical Operation and Characteristics:

Plate Voltage . . . . .	110	volts
Grid-No.2 Voltage . . . . .	110	volts
Grid-No.1 Voltage . . . . .	-7.5	volts
Peak AF Grid-No.1 Voltage . . . . .	7.5	volts
Zero-Signal Plate Current . . . . .	35	ma
Zero-Signal Grid-No.2 Current . . . . .	3	ma
Plate Resistance (Approx.) . . . . .	13000	ohms
Transconductance . . . . .	5700	$\mu$ mhos
Load Resistance . . . . .	2500	ohms
Total Harmonic Distortion . . . . .	10	%
Max.-Signal Power Output . . . . .	1.4	watts

## Maximum Circuit Values:

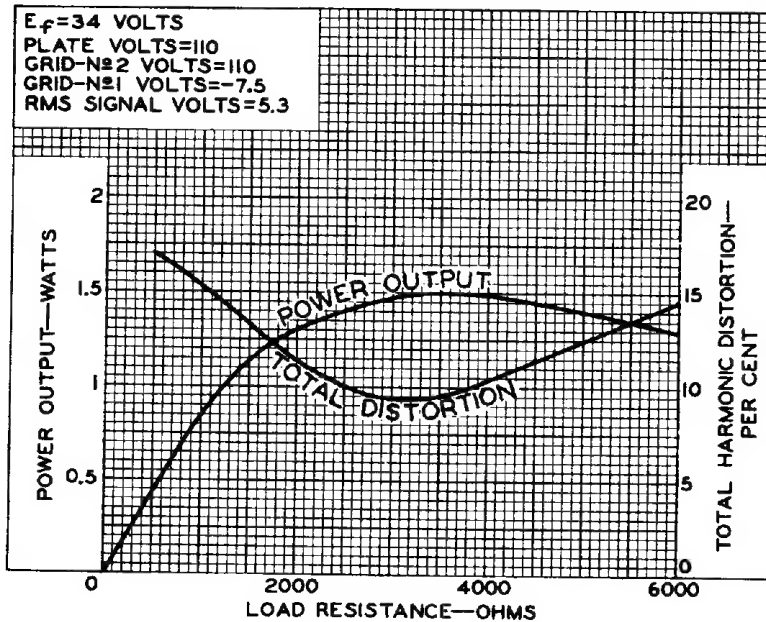
### Grid-No.1-Circuit Resistance:

For fixed-bias operation . . . . .	0.1 max.	megohm
For cathode-bias operation . . . . .	0.5 max.	megohm

<sup>a</sup> Without external shield.

<sup>b</sup> The dc component must not exceed 100 volts.

## OPERATION CHARACTERISTICS



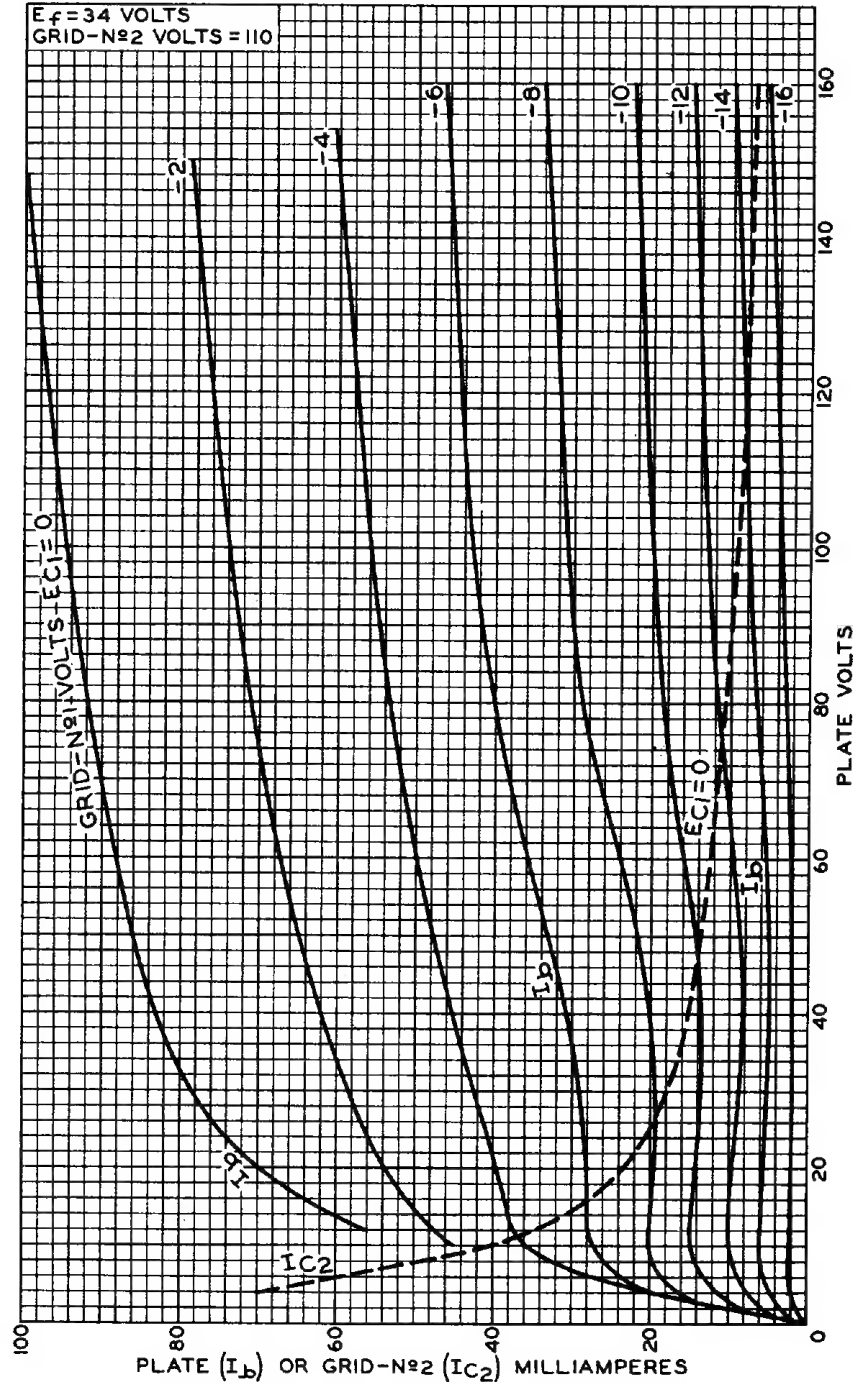
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## AVERAGE CHARACTERISTICS



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